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U. S. DEPARTMENT OF AGRICULTURE.

U. S. BUREAU OF CHEMISTRY.



TABLES FOR CALCULATING PERCENTAGE OF ALCOHOL

BELOW 50 PER CENT BY VOLUME.

[Recalculated from the determinations of Gilpin, Drinkwater, and Squibb.]

| Specific gravity at 60° F. | Alcohol. | | | Specific gravity at 60° F. | Alcohol. | | | Specific gravity at 60° F. | Alcohol. | | |
|----------------------------|---------------------|---------------------|-------------------|----------------------------|---------------------|---------------------|-------------------|----------------------------|---------------------|---------------------|-------------------|
| | Per cent by volume. | Per cent by weight. | Grams per 100 cc. | | Per cent by volume. | Per cent by weight. | Grams per 100 cc. | | Per cent by volume. | Per cent by weight. | Grams per 100 cc. |
| 1.00000 | 0.00 | 0.00 | 0.00 | .99884 | 0.75 | 0.60 | 0.60 | .99775 | 1.50 | 1.19 | 1.19 |
| .99992 | 0.05 | 0.04 | 0.04 | .99877 | 0.80 | 0.64 | 0.64 | .99768 | 1.55 | 1.23 | 1.23 |
| .99984 | 0.10 | 0.08 | 0.08 | .99869 | 0.85 | 0.67 | 0.67 | .99760 | 1.60 | 1.27 | 1.27 |
| .99976 | 0.15 | 0.12 | 0.12 | .99861 | 0.90 | 0.71 | 0.71 | .99753 | 1.65 | 1.31 | 1.31 |
| .99968 | 0.20 | 0.16 | 0.16 | .99854 | 0.95 | 0.75 | 0.75 | .99745 | 1.70 | 1.35 | 1.35 |
| .99961 | 0.25 | 0.20 | 0.20 | .99849 | 1.00 | 0.79 | 0.79 | .99738 | 1.75 | 1.39 | 1.39 |
| .99953 | 0.30 | 0.24 | 0.24 | .99842 | 1.05 | 0.83 | 0.83 | .99731 | 1.80 | 1.43 | 1.43 |
| .99945 | 0.35 | 0.28 | 0.28 | .99834 | 1.10 | 0.87 | 0.87 | .99723 | 1.85 | 1.47 | 1.47 |
| .99937 | 0.40 | 0.32 | 0.32 | .99827 | 1.15 | 0.91 | 0.91 | .99716 | 1.90 | 1.51 | 1.51 |
| .99930 | 0.45 | 0.36 | 0.36 | .99819 | 1.20 | 0.95 | 0.95 | .99708 | 1.95 | 1.55 | 1.55 |
| .99923 | 0.50 | 0.40 | 0.40 | .99812 | 1.25 | 0.99 | 0.99 | .99701 | 2.00 | 1.59 | 1.59 |
| .99915 | 0.55 | 0.44 | 0.44 | .99805 | 1.30 | 1.03 | 1.03 | .99694 | 2.05 | 1.63 | 1.62 |
| .99907 | 0.60 | 0.48 | 0.48 | .99797 | 1.35 | 1.07 | 1.07 | .99687 | 2.10 | 1.67 | 1.66 |
| .99900 | 0.65 | 0.52 | 0.52 | .99790 | 1.40 | 1.11 | 1.11 | .99679 | 2.15 | 1.71 | 1.70 |
| .99892 | 0.70 | 0.56 | 0.56 | .99782 | 1.45 | 1.15 | 1.15 | .99672 | 2.20 | 1.75 | 1.74 |

Below 50 per cent by volume—Continued.

| Specific gravity at 60° F. | Alcohol. | | | Specific gravity at 60° F. | Alcohol. | | | Specific gravity at 60° F. | Alcohol. | | |
|----------------------------|---------------------|---------------------|-------------------|----------------------------|---------------------|---------------------|-------------------|----------------------------|---------------------|---------------------|-------------------|
| | Per cent by volume. | Per cent by weight. | Grams per 100 cc. | | Per cent by volume. | Per cent by weight. | Grams per 100 cc. | | Per cent by volume. | Per cent by weight. | Grams per 100 cc. |
| 0.99665 | 2.25 | 1.79 | 1.78 | 0.99215 | 5.50 | 4.40 | 4.37 | 0.98807 | 8.75 | 7.03 | 6.95 |
| .99658 | 2.30 | 1.83 | 1.82 | .99208 | 5.55 | 4.44 | 4.40 | .98801 | 8.80 | 7.07 | 6.99 |
| .99651 | 2.35 | 1.87 | 1.86 | .99202 | 5.60 | 4.48 | 4.44 | .98795 | 8.85 | 7.11 | 7.03 |
| .99643 | 2.40 | 1.91 | 1.90 | .99195 | 5.65 | 4.52 | 4.48 | .98789 | 8.90 | 7.15 | 7.07 |
| .99636 | 2.45 | 1.95 | 1.94 | .99189 | 5.70 | 4.56 | 4.52 | .98783 | 8.95 | 7.19 | 7.11 |
| .99629 | 2.50 | 1.99 | 1.98 | .99182 | 5.75 | 4.60 | 4.56 | .98777 | 9.00 | 7.23 | 7.14 |
| .99622 | 2.55 | 2.03 | 2.02 | .99175 | 5.80 | 4.64 | 4.60 | .98771 | 9.05 | 7.27 | 7.18 |
| .99615 | 2.60 | 2.07 | 2.06 | .99169 | 5.85 | 4.68 | 4.64 | .98765 | 9.10 | 7.31 | 7.22 |
| .99607 | 2.65 | 2.11 | 2.10 | .99162 | 5.90 | 4.72 | 4.68 | .98759 | 9.15 | 7.35 | 7.26 |
| .99600 | 2.70 | 2.15 | 2.14 | .99156 | 5.95 | 4.76 | 4.72 | .98754 | 9.20 | 7.39 | 7.30 |
| .99593 | 2.75 | 2.19 | 2.18 | .99149 | 6.00 | 4.80 | 4.76 | .98748 | 9.25 | 7.43 | 7.34 |
| .99586 | 2.80 | 2.23 | 2.22 | .99143 | 6.05 | 4.84 | 4.80 | .98742 | 9.30 | 7.48 | 7.38 |
| .99579 | 2.85 | 2.27 | 2.26 | .99136 | 6.10 | 4.88 | 4.84 | .98736 | 9.35 | 7.52 | 7.42 |
| .99571 | 2.90 | 2.31 | 2.30 | .99130 | 6.15 | 4.92 | 4.88 | .98730 | 9.40 | 7.56 | 7.46 |
| .99564 | 2.95 | 2.35 | 2.34 | .99123 | 6.20 | 4.96 | 4.92 | .98724 | 9.45 | 7.60 | 7.50 |
| .99557 | 3.00 | 2.39 | 2.38 | .99117 | 6.25 | 5.00 | 4.96 | .98719 | 9.50 | 7.64 | 7.54 |
| .99550 | 3.05 | 2.43 | 2.42 | .99111 | 6.30 | 5.05 | 5.00 | .98713 | 9.55 | 7.68 | 7.58 |
| .99543 | 3.10 | 2.47 | 2.46 | .99104 | 6.35 | 5.09 | 5.04 | .98707 | 9.60 | 7.72 | 7.62 |
| .99536 | 3.15 | 2.51 | 2.50 | .99098 | 6.40 | 5.13 | 5.08 | .98701 | 9.65 | 7.76 | 7.66 |
| .99529 | 3.20 | 2.55 | 2.54 | .99091 | 6.45 | 5.17 | 5.12 | .98695 | 9.70 | 7.80 | 7.70 |
| .99522 | 3.25 | 2.59 | 2.58 | .99085 | 6.50 | 5.21 | 5.16 | .98689 | 9.75 | 7.84 | 7.74 |
| .99515 | 3.30 | 2.64 | 2.62 | .99079 | 6.55 | 5.25 | 5.20 | .98683 | 9.80 | 7.88 | 7.78 |
| .99508 | 3.35 | 2.68 | 2.66 | .99072 | 6.60 | 5.29 | 5.24 | .98677 | 9.85 | 7.92 | 7.82 |
| .99501 | 3.40 | 2.72 | 2.70 | .99066 | 6.65 | 5.33 | 5.28 | .98672 | 9.90 | 7.96 | 7.85 |
| .99494 | 3.45 | 2.76 | 2.74 | .99059 | 6.70 | 5.37 | 5.32 | .98666 | 9.95 | 8.00 | 7.89 |
| .99487 | 3.50 | 2.80 | 2.78 | .99053 | 6.75 | 5.41 | 5.36 | .98660 | 10.00 | 8.04 | 7.93 |
| .99480 | 3.55 | 2.84 | 2.82 | .99047 | 6.80 | 5.45 | 5.40 | .98654 | 10.05 | 8.08 | 7.97 |
| .99473 | 3.60 | 2.88 | 2.86 | .99040 | 6.85 | 5.49 | 5.44 | .98649 | 10.10 | 8.12 | 8.01 |
| .99466 | 3.65 | 2.92 | 2.90 | .99034 | 6.90 | 5.53 | 5.48 | .98643 | 10.15 | 8.16 | 8.05 |
| .99459 | 3.70 | 2.96 | 2.94 | .99027 | 6.95 | 5.57 | 5.52 | .98637 | 10.20 | 8.20 | 8.09 |
| .99452 | 3.75 | 3.00 | 2.98 | .99021 | 7.00 | 5.61 | 5.56 | .98632 | 10.25 | 8.24 | 8.13 |
| .99445 | 3.80 | 3.04 | 3.02 | .99015 | 7.05 | 5.65 | 5.60 | .98626 | 10.30 | 8.29 | 8.17 |
| .99438 | 3.85 | 3.08 | 3.06 | .99009 | 7.10 | 5.69 | 5.64 | .98620 | 10.35 | 8.33 | 8.21 |
| .99431 | 3.90 | 3.12 | 3.10 | .99002 | 7.15 | 5.73 | 5.68 | .98614 | 10.40 | 8.37 | 8.25 |
| .99424 | 3.95 | 3.16 | 3.14 | .98996 | 7.20 | 5.77 | 5.72 | .98609 | 10.45 | 8.41 | 8.29 |
| .99417 | 4.00 | 3.20 | 3.18 | .98990 | 7.25 | 5.81 | 5.76 | .98603 | 10.50 | 8.45 | 8.33 |
| .99410 | 4.05 | 3.24 | 3.22 | .98984 | 7.30 | 5.86 | 5.80 | .98597 | 10.55 | 8.49 | 8.37 |
| .99403 | 4.10 | 3.28 | 3.26 | .98978 | 7.35 | 5.90 | 5.84 | .98592 | 10.60 | 8.53 | 8.41 |
| .99397 | 4.15 | 3.32 | 3.30 | .98971 | 7.40 | 5.94 | 5.88 | .98586 | 10.65 | 8.57 | 8.45 |
| .99390 | 4.20 | 3.36 | 3.34 | .98965 | 7.45 | 5.98 | 5.92 | .98580 | 10.70 | 8.61 | 8.49 |
| .99383 | 4.25 | 3.40 | 3.38 | .98959 | 7.50 | 6.02 | 5.96 | .98575 | 10.75 | 8.65 | 8.53 |
| .99376 | 4.30 | 3.44 | 3.42 | .98953 | 7.55 | 6.06 | 6.00 | .98569 | 10.80 | 8.70 | 8.57 |
| .99369 | 4.35 | 3.48 | 3.46 | .98947 | 7.60 | 6.10 | 6.04 | .98563 | 10.85 | 8.74 | 8.61 |
| .99363 | 4.40 | 3.52 | 3.50 | .98940 | 7.65 | 6.14 | 6.07 | .98557 | 10.90 | 8.78 | 8.65 |
| .99356 | 4.45 | 3.56 | 3.54 | .98934 | 7.70 | 6.18 | 6.11 | .98552 | 10.95 | 8.82 | 8.69 |
| .99349 | 4.50 | 3.60 | 3.58 | .98928 | 7.75 | 6.22 | 6.15 | .98546 | 11.00 | 8.86 | 8.73 |
| .99342 | 4.55 | 3.64 | 3.62 | .98922 | 7.80 | 6.26 | 6.19 | .98540 | 11.05 | 8.90 | 8.77 |
| .99335 | 4.60 | 3.68 | 3.66 | .98916 | 7.85 | 6.30 | 6.23 | .98535 | 11.10 | 8.94 | 8.81 |
| .99329 | 4.65 | 3.72 | 3.70 | .98910 | 7.90 | 6.34 | 6.27 | .98529 | 11.15 | 8.98 | 8.85 |
| .99322 | 4.70 | 3.76 | 3.74 | .98903 | 7.95 | 6.38 | 6.31 | .98524 | 11.20 | 9.02 | 8.89 |
| .99315 | 4.75 | 3.80 | 3.77 | .98897 | 8.00 | 6.42 | 6.35 | .98518 | 11.25 | 9.07 | 8.93 |
| .99308 | 4.80 | 3.84 | 3.81 | .98891 | 8.05 | 6.46 | 6.39 | .98513 | 11.30 | 9.11 | 8.97 |
| .99301 | 4.85 | 3.88 | 3.85 | .98885 | 8.10 | 6.50 | 6.43 | .98507 | 11.35 | 9.15 | 9.01 |
| .99295 | 4.90 | 3.92 | 3.89 | .98879 | 8.15 | 6.54 | 6.47 | .98502 | 11.40 | 9.19 | 9.05 |
| .99288 | 4.95 | 3.96 | 3.93 | .98873 | 8.20 | 6.58 | 6.51 | .98496 | 11.45 | 9.23 | 9.09 |
| .99281 | 5.00 | 4.00 | 3.97 | .98867 | 8.25 | 6.62 | 6.55 | .98491 | 11.50 | 9.27 | 9.13 |
| .99274 | 5.05 | 4.04 | 4.01 | .98861 | 8.30 | 6.67 | 6.59 | .98485 | 11.55 | 9.31 | 9.17 |
| .99268 | 5.10 | 4.08 | 4.05 | .98855 | 8.35 | 6.71 | 6.63 | .98479 | 11.60 | 9.35 | 9.21 |
| .99261 | 5.15 | 4.12 | 4.09 | .98849 | 8.40 | 6.75 | 6.67 | .98474 | 11.65 | 9.39 | 9.25 |
| .99255 | 5.20 | 4.16 | 4.13 | .98843 | 8.45 | 6.79 | 6.71 | .98468 | 11.70 | 9.43 | 9.29 |
| .99248 | 5.25 | 4.20 | 4.17 | .98837 | 8.50 | 6.83 | 6.75 | .98463 | 11.75 | 9.47 | 9.32 |
| .99241 | 5.30 | 4.24 | 4.21 | .98831 | 8.55 | 6.87 | 6.79 | .98457 | 11.80 | 9.51 | 9.36 |
| .99235 | 5.35 | 4.28 | 4.25 | .98825 | 8.60 | 6.91 | 6.83 | .98452 | 11.85 | 9.55 | 9.40 |
| .99228 | 5.40 | 4.32 | 4.29 | .98819 | 8.65 | 6.95 | 6.87 | .98446 | 11.90 | 9.59 | 9.44 |
| .99222 | 5.45 | 4.36 | 4.33 | .98813 | 8.70 | 6.99 | 6.91 | .98441 | 11.95 | 9.63 | 9.48 |

Below 50 per cent by volume—Continued.

| Specific gravity at 59° F. | Alcohol. | | | Specific gravity at 59° F. | Alcohol. | | | Specific gravity at 59° F. | Alcohol. | | |
|----------------------------|---------------------|---------------------|-------------------|----------------------------|---------------------|---------------------|-------------------|----------------------------|---------------------|---------------------|-------------------|
| | Per cent by volume. | Per cent by weight. | Grams per 100 cc. | | Per cent by volume. | Per cent by weight. | Grams per 100 cc. | | Per cent by volume. | Per cent by weight. | Grams per 100 cc. |
| 0.98435 | 12.00 | 9.67 | 9.52 | 0.98088 | 15.25 | 12.33 | 12.10 | 0.97758 | 18.50 | 15.02 | 14.68 |
| .98430 | 12.05 | 9.71 | 9.56 | .98083 | 15.30 | 12.38 | 12.14 | .97753 | 18.55 | 15.06 | 14.72 |
| .98424 | 12.10 | 9.75 | 9.60 | .98078 | 15.35 | 12.42 | 12.18 | .97748 | 18.60 | 15.10 | 14.76 |
| .98419 | 12.15 | 9.79 | 9.64 | .98073 | 15.40 | 12.46 | 12.22 | .97743 | 18.65 | 15.14 | 14.80 |
| .98413 | 12.20 | 9.83 | 9.68 | .98068 | 15.45 | 12.50 | 12.26 | .97738 | 18.70 | 15.18 | 14.84 |
| .98408 | 12.25 | 9.87 | 9.72 | .98063 | 15.50 | 12.54 | 12.30 | .97733 | 18.75 | 15.22 | 14.88 |
| .98402 | 12.30 | 9.92 | 9.76 | .98057 | 15.55 | 12.58 | 12.34 | .97728 | 18.80 | 15.27 | 14.92 |
| .98397 | 12.35 | 9.96 | 9.80 | .98052 | 15.60 | 12.62 | 12.37 | .97723 | 18.85 | 15.31 | 14.96 |
| .98391 | 12.40 | 10.00 | 9.84 | .98047 | 15.65 | 12.66 | 12.41 | .97718 | 18.90 | 15.35 | 15.00 |
| .98386 | 12.45 | 10.04 | 9.88 | .98042 | 15.70 | 12.70 | 12.45 | .97713 | 18.95 | 15.39 | 15.04 |
| .98381 | 12.50 | 10.08 | 9.92 | .98037 | 15.75 | 12.75 | 12.49 | .97708 | 19.00 | 15.43 | 15.08 |
| .98375 | 12.55 | 10.12 | 9.96 | .98032 | 15.80 | 12.79 | 12.53 | .97703 | 19.05 | 15.47 | 15.11 |
| .98370 | 12.60 | 10.16 | 10.00 | .98026 | 15.85 | 12.83 | 12.57 | .97698 | 19.10 | 15.51 | 15.15 |
| .98364 | 12.65 | 10.20 | 10.03 | .98021 | 15.90 | 12.87 | 12.61 | .97693 | 19.15 | 15.55 | 15.19 |
| .98359 | 12.70 | 10.24 | 10.07 | .98016 | 15.95 | 12.91 | 12.65 | .97688 | 19.20 | 15.59 | 15.23 |
| .98353 | 12.75 | 10.28 | 10.11 | .98011 | 16.00 | 12.95 | 12.69 | .97683 | 19.25 | 15.63 | 15.27 |
| .98348 | 12.80 | 10.33 | 10.15 | .98005 | 16.05 | 12.99 | 12.73 | .97678 | 19.30 | 15.68 | 15.31 |
| .98342 | 12.85 | 10.37 | 10.19 | .98001 | 16.10 | 13.03 | 12.77 | .97673 | 19.35 | 15.72 | 15.35 |
| .98337 | 12.90 | 10.41 | 10.23 | .97996 | 16.15 | 13.08 | 12.81 | .97668 | 19.40 | 15.76 | 15.39 |
| .98331 | 12.95 | 10.45 | 10.27 | .97991 | 16.20 | 13.12 | 12.85 | .97663 | 19.45 | 15.80 | 15.43 |
| .98326 | 13.00 | 10.49 | 10.31 | .97986 | 16.25 | 13.16 | 12.89 | .97658 | 19.50 | 15.84 | 15.47 |
| .98321 | 13.05 | 10.53 | 10.35 | .97980 | 16.30 | 13.20 | 12.93 | .97653 | 19.55 | 15.88 | 15.51 |
| .98315 | 13.10 | 10.57 | 10.39 | .97975 | 16.35 | 13.24 | 12.97 | .97648 | 19.60 | 15.93 | 15.55 |
| .98310 | 13.15 | 10.61 | 10.43 | .97970 | 16.40 | 13.29 | 13.01 | .97643 | 19.65 | 15.97 | 15.59 |
| .98305 | 13.20 | 10.65 | 10.47 | .97965 | 16.45 | 13.33 | 13.05 | .97638 | 19.70 | 16.01 | 15.63 |
| .98299 | 13.25 | 10.69 | 10.51 | .97960 | 16.50 | 13.37 | 13.09 | .97633 | 19.75 | 16.05 | 15.67 |
| .98294 | 13.30 | 10.74 | 10.55 | .97955 | 16.55 | 13.41 | 13.13 | .97628 | 19.80 | 16.09 | 15.71 |
| .98289 | 13.35 | 10.78 | 10.59 | .97950 | 16.60 | 13.45 | 13.17 | .97623 | 19.85 | 16.14 | 15.75 |
| .98283 | 13.40 | 10.82 | 10.63 | .97945 | 16.65 | 13.49 | 13.21 | .97618 | 19.90 | 16.18 | 15.79 |
| .98278 | 13.45 | 10.86 | 10.67 | .97940 | 16.70 | 13.53 | 13.25 | .97613 | 19.95 | 16.22 | 15.83 |
| .98273 | 13.50 | 10.90 | 10.71 | .97935 | 16.75 | 13.57 | 13.29 | .97608 | 20.00 | 16.26 | 15.87 |
| .98267 | 13.55 | 10.94 | 10.75 | .97929 | 16.80 | 13.62 | 13.33 | .97603 | 20.05 | 16.30 | 15.91 |
| .98262 | 13.60 | 10.98 | 10.79 | .97924 | 16.85 | 13.66 | 13.37 | .97598 | 20.10 | 16.34 | 15.95 |
| .98256 | 13.65 | 11.02 | 10.83 | .97919 | 16.90 | 13.70 | 13.41 | .97593 | 20.15 | 16.38 | 15.99 |
| .98251 | 13.70 | 11.06 | 10.87 | .97914 | 16.95 | 13.74 | 13.45 | .97588 | 20.20 | 16.42 | 16.03 |
| .98246 | 13.75 | 11.11 | 10.91 | .97909 | 17.00 | 13.78 | 13.49 | .97583 | 20.25 | 16.46 | 16.06 |
| .98240 | 13.80 | 11.15 | 10.95 | .97904 | 17.05 | 13.82 | 13.53 | .97578 | 20.30 | 16.51 | 16.10 |
| .98235 | 13.85 | 11.19 | 10.99 | .97899 | 17.10 | 13.86 | 13.57 | .97573 | 20.35 | 16.55 | 16.14 |
| .98230 | 13.90 | 11.23 | 11.03 | .97894 | 17.15 | 13.90 | 13.61 | .97568 | 20.40 | 16.59 | 16.18 |
| .98224 | 13.95 | 11.27 | 11.07 | .97889 | 17.20 | 13.94 | 13.65 | .97563 | 20.45 | 16.63 | 16.22 |
| .98219 | 14.00 | 11.31 | 11.11 | .97884 | 17.25 | 13.98 | 13.69 | .97558 | 20.50 | 16.67 | 16.26 |
| .98214 | 14.05 | 11.35 | 11.15 | .97879 | 17.30 | 14.03 | 13.73 | .97553 | 20.55 | 16.71 | 16.30 |
| .98209 | 14.10 | 11.39 | 11.19 | .97874 | 17.35 | 14.07 | 13.77 | .97548 | 20.60 | 16.75 | 16.34 |
| .98203 | 14.15 | 11.43 | 11.23 | .97869 | 17.40 | 14.11 | 13.81 | .97543 | 20.65 | 16.80 | 16.38 |
| .98198 | 14.20 | 11.47 | 11.27 | .97864 | 17.45 | 14.15 | 13.85 | .97538 | 20.70 | 16.84 | 16.42 |
| .98193 | 14.25 | 11.52 | 11.31 | .97859 | 17.50 | 14.19 | 13.89 | .97533 | 20.75 | 16.88 | 16.46 |
| .98188 | 14.30 | 11.56 | 11.35 | .97853 | 17.55 | 14.23 | 13.92 | .97527 | 20.80 | 16.92 | 16.50 |
| .98182 | 14.35 | 11.60 | 11.39 | .97848 | 17.60 | 14.27 | 13.96 | .97522 | 20.85 | 16.96 | 16.54 |
| .98177 | 14.40 | 11.64 | 11.43 | .97843 | 17.65 | 14.31 | 14.00 | .97517 | 20.90 | 17.01 | 16.58 |
| .98172 | 14.45 | 11.68 | 11.47 | .97838 | 17.70 | 14.35 | 14.04 | .97512 | 20.95 | 17.05 | 16.62 |
| .98167 | 14.50 | 11.72 | 11.51 | .97833 | 17.75 | 14.40 | 14.08 | .97507 | 21.00 | 17.09 | 16.66 |
| .98161 | 14.55 | 11.76 | 11.55 | .97828 | 17.80 | 14.44 | 14.12 | .97502 | 21.05 | 17.13 | 16.70 |
| .98156 | 14.60 | 11.80 | 11.59 | .97823 | 17.85 | 14.48 | 14.16 | .97497 | 21.10 | 17.17 | 16.74 |
| .98151 | 14.65 | 11.84 | 11.63 | .97818 | 17.90 | 14.52 | 14.20 | .97492 | 21.15 | 17.22 | 16.78 |
| .98146 | 14.70 | 11.88 | 11.67 | .97813 | 17.95 | 14.56 | 14.24 | .97487 | 21.20 | 17.26 | 16.82 |
| .98140 | 14.75 | 11.93 | 11.71 | .97808 | 18.00 | 14.60 | 14.28 | .97482 | 21.25 | 17.30 | 16.86 |
| .98135 | 14.80 | 11.97 | 11.75 | .97803 | 18.05 | 14.64 | 14.32 | .97477 | 21.30 | 17.34 | 16.90 |
| .98130 | 14.85 | 12.01 | 11.79 | .97798 | 18.10 | 14.68 | 14.36 | .97472 | 21.35 | 17.38 | 16.94 |
| .98125 | 14.90 | 12.05 | 11.82 | .97793 | 18.15 | 14.73 | 14.40 | .97467 | 21.40 | 17.43 | 16.98 |
| .98119 | 14.95 | 12.09 | 11.86 | .97788 | 18.20 | 14.77 | 14.44 | .97462 | 21.45 | 17.47 | 17.02 |
| .98114 | 15.00 | 12.13 | 11.90 | .97783 | 18.25 | 14.81 | 14.48 | .97457 | 21.50 | 17.51 | 17.06 |
| .98108 | 15.05 | 12.17 | 11.94 | .97778 | 18.30 | 14.85 | 14.52 | .97451 | 21.55 | 17.55 | 17.10 |
| .98104 | 15.10 | 12.21 | 11.98 | .97773 | 18.35 | 14.89 | 14.56 | .97446 | 21.60 | 17.59 | 17.14 |
| .98099 | 15.15 | 12.25 | 12.02 | .97768 | 18.40 | 14.94 | 14.60 | .97441 | 21.65 | 17.63 | 17.18 |
| .98093 | 15.20 | 12.29 | 12.06 | .97763 | 18.45 | 14.98 | 14.64 | .97436 | 21.70 | 17.67 | 17.22 |

Below 50 per cent by volume—Continued.

| Specific gravity at 60° F. | Alcohol. | | | Specific gravity at 60° F. | Alcohol. | | | Specific gravity at 60° F. | Alcohol. | | |
|----------------------------|---------------------|---------------------|-------------------|----------------------------|---------------------|---------------------|-------------------|----------------------------|---------------------|---------------------|-------------------|
| | Per cent by volume. | Per cent by weight. | Grams per 100 cc. | | Per cent by volume. | Per cent by weight. | Grams per 100 cc. | | Per cent by volume. | Per cent by weight. | Grams per 100 cc. |
| 0.97431 | 21.75 | 17.71 | 17.26 | 0.97097 | 25.00 | 20.43 | 19.84 | 0.96744 | 28.25 | 23.17 | 22.42 |
| .97426 | 21.80 | 17.76 | 17.30 | .97092 | 25.05 | 20.47 | 19.88 | .96738 | 28.30 | 23.21 | 22.45 |
| .97421 | 21.85 | 17.80 | 17.34 | .97086 | 25.10 | 20.51 | 19.92 | .96732 | 28.35 | 23.25 | 22.49 |
| .97416 | 21.90 | 17.84 | 17.38 | .97081 | 25.15 | 20.56 | 19.96 | .96726 | 28.40 | 23.30 | 22.53 |
| .97411 | 21.95 | 17.88 | 17.42 | .97076 | 25.20 | 20.60 | 20.00 | .96721 | 28.45 | 23.34 | 22.57 |
| .97406 | 22.00 | 17.92 | 17.46 | .97071 | 25.25 | 20.64 | 20.04 | .96715 | 28.50 | 23.38 | 22.61 |
| .97401 | 22.05 | 17.96 | 17.50 | .97065 | 25.30 | 20.68 | 20.08 | .96709 | 28.55 | 23.42 | 22.65 |
| .97396 | 22.10 | 18.00 | 17.54 | .97060 | 25.35 | 20.72 | 20.12 | .96704 | 28.60 | 23.47 | 22.69 |
| .97391 | 22.15 | 18.05 | 17.58 | .97055 | 25.40 | 20.77 | 20.16 | .96698 | 28.65 | 23.51 | 22.73 |
| .97386 | 22.20 | 18.09 | 17.62 | .97049 | 25.45 | 20.81 | 20.20 | .96692 | 28.70 | 23.55 | 22.77 |
| .97381 | 22.25 | 18.13 | 17.66 | .97044 | 25.50 | 20.85 | 20.24 | .96687 | 28.75 | 23.60 | 22.81 |
| .97375 | 22.30 | 18.17 | 17.70 | .97039 | 25.55 | 20.89 | 20.28 | .96681 | 28.80 | 23.64 | 22.85 |
| .97370 | 22.35 | 18.21 | 17.74 | .97033 | 25.60 | 20.93 | 20.32 | .96675 | 28.85 | 23.68 | 22.89 |
| .97365 | 22.40 | 18.26 | 17.78 | .97028 | 25.65 | 20.98 | 20.36 | .96669 | 28.90 | 23.72 | 22.93 |
| .97360 | 22.45 | 18.30 | 17.82 | .97023 | 25.70 | 21.02 | 20.40 | .96664 | 28.95 | 23.77 | 22.97 |
| .97355 | 22.50 | 18.34 | 17.86 | .97018 | 25.75 | 21.06 | 20.44 | .96658 | 29.00 | 23.81 | 23.01 |
| .97350 | 22.55 | 18.38 | 17.90 | .97012 | 25.80 | 21.10 | 20.47 | .96652 | 29.05 | 23.85 | 23.05 |
| .97345 | 22.60 | 18.42 | 17.94 | .97007 | 25.85 | 21.14 | 20.51 | .96646 | 29.10 | 23.89 | 23.09 |
| .97340 | 22.65 | 18.47 | 17.98 | .97001 | 25.90 | 21.19 | 20.55 | .96640 | 29.15 | 23.94 | 23.13 |
| .97335 | 22.70 | 18.51 | 18.02 | .96996 | 25.95 | 21.23 | 20.59 | .96635 | 29.20 | 23.98 | 23.17 |
| .97330 | 22.75 | 18.55 | 18.06 | .96991 | 26.00 | 21.27 | 20.63 | .96629 | 29.25 | 24.02 | 23.21 |
| .97324 | 22.80 | 18.59 | 18.10 | .96986 | 26.05 | 21.31 | 20.67 | .96623 | 29.30 | 24.06 | 23.25 |
| .97319 | 22.85 | 18.63 | 18.14 | .96980 | 26.10 | 21.35 | 20.71 | .96617 | 29.35 | 24.10 | 23.29 |
| .97314 | 22.90 | 18.68 | 18.18 | .96975 | 26.15 | 21.40 | 20.75 | .96611 | 29.40 | 24.15 | 23.33 |
| .97309 | 22.95 | 18.72 | 18.22 | .96969 | 26.20 | 21.44 | 20.79 | .96605 | 29.45 | 24.19 | 23.37 |
| .97304 | 23.00 | 18.76 | 18.26 | .96964 | 26.25 | 21.48 | 20.83 | .96600 | 29.50 | 24.23 | 23.41 |
| .97299 | 23.05 | 18.80 | 18.29 | .96959 | 26.30 | 21.52 | 20.87 | .96594 | 29.55 | 24.27 | 23.45 |
| .97294 | 23.10 | 18.84 | 18.33 | .96953 | 26.35 | 21.56 | 20.91 | .96587 | 29.60 | 24.32 | 23.49 |
| .97289 | 23.15 | 18.88 | 18.37 | .96949 | 26.40 | 21.61 | 20.95 | .96582 | 29.65 | 24.36 | 23.53 |
| .97283 | 23.20 | 18.92 | 18.41 | .96942 | 26.45 | 21.65 | 20.99 | .96576 | 29.70 | 24.40 | 23.57 |
| .97278 | 23.25 | 18.96 | 18.45 | .96937 | 26.50 | 21.69 | 21.03 | .96570 | 29.75 | 24.45 | 23.61 |
| .97273 | 23.30 | 19.01 | 18.49 | .96932 | 26.55 | 21.73 | 21.07 | .96564 | 29.80 | 24.49 | 23.65 |
| .97268 | 23.35 | 19.05 | 18.53 | .96926 | 26.60 | 21.77 | 21.11 | .96559 | 29.85 | 24.53 | 23.69 |
| .97263 | 23.40 | 19.09 | 18.57 | .96921 | 26.65 | 21.82 | 21.15 | .96553 | 29.90 | 24.57 | 23.73 |
| .97258 | 23.45 | 19.13 | 18.61 | .96915 | 26.70 | 21.86 | 21.19 | .96547 | 29.95 | 24.62 | 23.77 |
| .97253 | 23.50 | 19.17 | 18.65 | .96910 | 26.75 | 21.90 | 21.23 | .96541 | 30.00 | 24.66 | 23.81 |
| .97247 | 23.55 | 19.21 | 18.69 | .96905 | 26.80 | 21.94 | 21.27 | .96535 | 30.05 | 24.70 | 23.85 |
| .97242 | 23.60 | 19.25 | 18.73 | .96899 | 26.85 | 21.98 | 21.31 | .96529 | 30.10 | 24.74 | 23.89 |
| .97237 | 23.65 | 19.30 | 18.77 | .96894 | 26.90 | 22.03 | 21.35 | .96523 | 30.15 | 24.79 | 23.93 |
| .97232 | 23.70 | 19.34 | 18.81 | .96888 | 26.95 | 22.07 | 21.39 | .96517 | 30.20 | 24.83 | 23.97 |
| .97227 | 23.75 | 19.38 | 18.84 | .96883 | 27.00 | 22.11 | 21.43 | .96511 | 30.25 | 24.87 | 24.01 |
| .97222 | 23.80 | 19.42 | 18.88 | .96877 | 27.05 | 22.15 | 21.47 | .96505 | 30.30 | 24.91 | 24.04 |
| .97216 | 23.85 | 19.46 | 18.92 | .96872 | 27.10 | 22.20 | 21.51 | .96499 | 30.35 | 24.95 | 24.08 |
| .97211 | 23.90 | 19.51 | 18.96 | .96866 | 27.15 | 22.24 | 21.55 | .96493 | 30.40 | 25.00 | 24.12 |
| .97206 | 23.95 | 19.55 | 19.00 | .96861 | 27.20 | 22.28 | 21.59 | .96487 | 30.45 | 25.04 | 24.16 |
| .97201 | 24.00 | 19.59 | 19.04 | .96855 | 27.25 | 22.33 | 21.63 | .96481 | 30.50 | 25.08 | 24.20 |
| .97196 | 24.05 | 19.63 | 19.08 | .96850 | 27.30 | 22.37 | 21.67 | .96475 | 30.55 | 25.12 | 24.24 |
| .97191 | 24.10 | 19.67 | 19.12 | .96844 | 27.35 | 22.41 | 21.71 | .96469 | 30.60 | 25.17 | 24.28 |
| .97185 | 24.15 | 19.72 | 19.16 | .96839 | 27.40 | 22.45 | 21.75 | .96463 | 30.65 | 25.21 | 24.32 |
| .97180 | 24.20 | 19.76 | 19.20 | .96833 | 27.45 | 22.50 | 21.79 | .96457 | 30.70 | 25.25 | 24.36 |
| .97175 | 24.25 | 19.80 | 19.24 | .96828 | 27.50 | 22.54 | 21.83 | .96451 | 30.75 | 25.30 | 24.40 |
| .97170 | 24.30 | 19.84 | 19.28 | .96822 | 27.55 | 22.58 | 21.86 | .96445 | 30.80 | 25.34 | 24.44 |
| .97165 | 24.35 | 19.88 | 19.32 | .96816 | 27.60 | 22.62 | 21.90 | .96439 | 30.85 | 25.38 | 24.48 |
| .97159 | 24.40 | 19.93 | 19.36 | .96811 | 27.65 | 22.67 | 21.94 | .96433 | 30.90 | 25.42 | 24.52 |
| .97154 | 24.45 | 19.97 | 19.40 | .96805 | 27.70 | 22.71 | 21.98 | .96427 | 30.95 | 25.47 | 24.56 |
| .97149 | 24.50 | 20.01 | 19.44 | .96800 | 27.75 | 22.75 | 22.02 | .96421 | 31.00 | 25.51 | 24.60 |
| .97144 | 24.55 | 20.05 | 19.48 | .96794 | 27.80 | 22.79 | 22.06 | .96415 | 31.05 | 25.55 | 24.64 |
| .97139 | 24.60 | 20.09 | 19.52 | .96789 | 27.85 | 22.83 | 22.10 | .96409 | 31.10 | 25.60 | 24.68 |
| .97133 | 24.65 | 20.14 | 19.56 | .96783 | 27.90 | 22.88 | 22.14 | .96403 | 31.15 | 25.64 | 24.72 |
| .97128 | 24.70 | 20.18 | 19.60 | .96778 | 27.95 | 22.92 | 22.18 | .96396 | 31.20 | 25.68 | 24.76 |
| .97123 | 24.75 | 20.22 | 19.64 | .96772 | 28.00 | 22.96 | 22.22 | .96390 | 31.25 | 25.73 | 24.80 |
| .97118 | 24.80 | 20.26 | 19.68 | .96766 | 28.05 | 23.00 | 22.26 | .96384 | 31.30 | 25.77 | 24.84 |
| .97113 | 24.85 | 20.30 | 19.72 | .96761 | 28.10 | 23.04 | 22.30 | .96378 | 31.35 | 25.81 | 24.88 |
| .97107 | 24.90 | 20.35 | 19.76 | .96755 | 28.15 | 23.09 | 22.34 | .96372 | 31.40 | 25.85 | 24.92 |
| .97102 | 24.95 | 20.39 | 19.80 | .96749 | 28.20 | 23.13 | 22.38 | .96366 | 31.45 | 25.90 | 24.96 |

Below 50 per cent by volume—Continued.

| Specific gravity at 59° F. | Alcohol. | | | Specific gravity at 59° F. | Alcohol. | | | Specific gravity at 59° F. | Alcohol. | | |
|----------------------------|---------------------|---------------------|-------------------|----------------------------|---------------------|---------------------|-------------------|----------------------------|---------------------|---------------------|-------------------|
| | Per cent by volume. | Per cent by weight. | Grams per 100 cc. | | Per cent by volume. | Per cent by weight. | Grams per 100 cc. | | Per cent by volume. | Per cent by weight. | Grams per 100 cc. |
| 0.96360 | 31.50 | 25.94 | 25.00 | 0.95943 | 34.75 | 28.74 | 27.58 | 0.95487 | 38.00 | 31.58 | 30.16 |
| .96353 | 31.55 | 25.98 | 25.04 | .95937 | 34.80 | 28.78 | 27.62 | .95480 | 38.05 | 31.63 | 30.20 |
| .96347 | 31.60 | 26.03 | 25.08 | .95930 | 34.85 | 28.83 | 27.66 | .95472 | 38.10 | 31.67 | 30.24 |
| .96341 | 31.65 | 26.07 | 25.12 | .95923 | 34.90 | 28.87 | 27.70 | .95465 | 38.15 | 31.72 | 30.28 |
| .96335 | 31.70 | 26.11 | 25.16 | .95917 | 34.95 | 28.92 | 27.74 | .95457 | 38.20 | 31.76 | 30.32 |
| .96329 | 31.75 | 26.16 | 25.20 | .95910 | 35.00 | 28.96 | 27.78 | .95450 | 38.25 | 31.81 | 30.36 |
| .96323 | 31.80 | 26.20 | 25.24 | .95903 | 35.05 | 29.00 | 27.82 | .95442 | 38.30 | 31.85 | 30.40 |
| .96316 | 31.85 | 26.24 | 25.28 | .95896 | 35.10 | 29.05 | 27.86 | .95435 | 38.35 | 31.90 | 30.44 |
| .96310 | 31.90 | 26.28 | 25.32 | .95889 | 35.15 | 29.09 | 27.90 | .95427 | 38.40 | 31.94 | 30.48 |
| .96304 | 31.95 | 26.33 | 25.36 | .95883 | 35.20 | 29.13 | 27.94 | .95420 | 38.45 | 31.99 | 30.52 |
| .96298 | 32.00 | 26.37 | 25.40 | .95876 | 35.25 | 29.18 | 27.98 | .95413 | 38.50 | 32.03 | 30.56 |
| .96292 | 32.05 | 26.41 | 25.44 | .95869 | 35.30 | 29.22 | 28.02 | .95405 | 38.55 | 32.07 | 30.60 |
| .96285 | 32.10 | 26.46 | 25.48 | .95862 | 35.35 | 29.26 | 28.05 | .95398 | 38.60 | 32.12 | 30.64 |
| .96279 | 32.15 | 26.50 | 25.52 | .95855 | 35.40 | 29.30 | 28.09 | .95390 | 38.65 | 32.16 | 30.68 |
| .96273 | 32.20 | 26.54 | 25.56 | .95848 | 35.45 | 29.35 | 28.13 | .95383 | 38.70 | 32.20 | 30.72 |
| .96267 | 32.25 | 26.59 | 25.60 | .95842 | 35.50 | 29.40 | 28.17 | .95375 | 38.75 | 32.25 | 30.76 |
| .96260 | 32.30 | 26.63 | 25.64 | .95835 | 35.55 | 29.43 | 28.21 | .95368 | 38.80 | 32.29 | 30.79 |
| .96254 | 32.35 | 26.67 | 25.68 | .95828 | 35.60 | 29.48 | 28.25 | .95360 | 38.85 | 32.33 | 30.83 |
| .96248 | 32.40 | 26.71 | 25.71 | .95821 | 35.65 | 29.52 | 28.29 | .95353 | 38.90 | 32.37 | 30.87 |
| .96241 | 32.45 | 26.76 | 25.75 | .95814 | 35.70 | 29.57 | 28.33 | .95345 | 38.95 | 32.42 | 30.91 |
| .96235 | 32.50 | 26.80 | 25.79 | .95807 | 35.75 | 29.61 | 28.37 | .95338 | 39.00 | 32.46 | 30.95 |
| .96229 | 32.55 | 26.84 | 25.83 | .95800 | 35.80 | 29.65 | 28.41 | .95330 | 39.05 | 32.50 | 30.99 |
| .96222 | 32.60 | 26.89 | 25.87 | .95794 | 35.85 | 29.70 | 28.45 | .95323 | 39.10 | 32.55 | 31.03 |
| .96216 | 32.65 | 26.93 | 25.91 | .95787 | 35.90 | 29.74 | 28.49 | .95315 | 39.15 | 32.59 | 31.07 |
| .96210 | 32.70 | 26.97 | 25.95 | .95780 | 35.95 | 29.79 | 28.53 | .95307 | 39.20 | 32.64 | 31.11 |
| .96204 | 32.75 | 27.02 | 25.99 | .95773 | 36.00 | 29.83 | 28.57 | .95300 | 39.25 | 32.68 | 31.14 |
| .96197 | 32.80 | 27.06 | 26.03 | .95766 | 36.05 | 29.87 | 28.61 | .95292 | 39.30 | 32.72 | 31.18 |
| .96191 | 32.85 | 27.10 | 26.07 | .95759 | 36.10 | 29.92 | 28.65 | .95284 | 39.35 | 32.77 | 31.22 |
| .96185 | 32.90 | 27.14 | 26.11 | .95752 | 36.15 | 29.96 | 28.69 | .95277 | 39.40 | 32.81 | 31.26 |
| .96178 | 32.95 | 27.19 | 26.15 | .95745 | 36.20 | 30.00 | 28.73 | .95269 | 39.45 | 32.86 | 31.30 |
| .96172 | 33.00 | 27.23 | 26.19 | .95738 | 36.25 | 30.05 | 28.77 | .95262 | 39.50 | 32.90 | 31.34 |
| .96166 | 33.05 | 27.27 | 26.23 | .95731 | 36.30 | 30.09 | 28.81 | .95254 | 39.55 | 32.95 | 31.38 |
| .96159 | 33.10 | 27.32 | 26.27 | .95724 | 36.35 | 30.13 | 28.84 | .95246 | 39.60 | 32.99 | 31.42 |
| .96153 | 33.15 | 27.36 | 26.31 | .95717 | 36.40 | 30.17 | 28.88 | .95239 | 39.65 | 33.04 | 31.46 |
| .96146 | 33.20 | 27.40 | 26.35 | .95710 | 36.45 | 30.22 | 28.92 | .95231 | 39.70 | 33.08 | 31.50 |
| .96140 | 33.25 | 27.45 | 26.39 | .95703 | 36.50 | 30.26 | 28.96 | .95223 | 39.75 | 33.13 | 31.54 |
| .96133 | 33.30 | 27.49 | 26.43 | .95695 | 36.55 | 30.30 | 29.00 | .95216 | 39.80 | 33.17 | 31.58 |
| .96127 | 33.35 | 27.53 | 26.47 | .95688 | 36.60 | 30.35 | 29.04 | .95208 | 39.85 | 33.22 | 31.62 |
| .96120 | 33.40 | 27.57 | 26.51 | .95681 | 36.65 | 30.39 | 29.08 | .95200 | 39.90 | 33.27 | 31.66 |
| .96114 | 33.45 | 27.62 | 26.55 | .95674 | 36.70 | 30.44 | 29.12 | .95193 | 39.95 | 33.31 | 31.70 |
| .96108 | 33.50 | 27.66 | 26.59 | .95667 | 36.75 | 30.48 | 29.16 | .95185 | 40.00 | 33.35 | 31.74 |
| .96101 | 33.55 | 27.70 | 26.63 | .95660 | 36.80 | 30.52 | 29.20 | .95177 | 40.05 | 33.39 | 31.78 |
| .96095 | 33.60 | 27.75 | 26.67 | .95653 | 36.85 | 30.57 | 29.24 | .95169 | 40.10 | 33.44 | 31.82 |
| .96088 | 33.65 | 27.79 | 26.71 | .95646 | 36.90 | 30.61 | 29.29 | .95161 | 40.15 | 33.48 | 31.86 |
| .96082 | 33.70 | 27.83 | 26.75 | .95639 | 36.95 | 30.66 | 29.32 | .95154 | 40.20 | 33.53 | 31.90 |
| .96075 | 33.75 | 27.88 | 26.79 | .95632 | 37.00 | 30.70 | 29.36 | .95146 | 40.25 | 33.57 | 31.94 |
| .96069 | 33.80 | 27.92 | 26.82 | .95625 | 37.05 | 30.74 | 29.40 | .95138 | 40.30 | 33.61 | 31.98 |
| .96062 | 33.85 | 27.96 | 26.86 | .95618 | 37.10 | 30.79 | 29.44 | .95130 | 40.35 | 33.66 | 32.02 |
| .96056 | 33.90 | 28.00 | 26.90 | .95610 | 37.15 | 30.83 | 29.48 | .95122 | 40.40 | 33.70 | 32.06 |
| .96049 | 33.95 | 28.05 | 26.94 | .95603 | 37.20 | 30.88 | 29.52 | .95114 | 40.45 | 33.75 | 32.10 |
| .96043 | 34.00 | 28.09 | 26.98 | .95596 | 37.25 | 30.92 | 29.56 | .95107 | 40.50 | 33.79 | 32.14 |
| .96036 | 34.05 | 28.13 | 27.02 | .95589 | 37.30 | 30.96 | 29.60 | .95099 | 40.55 | 33.84 | 32.18 |
| .96030 | 34.10 | 28.18 | 27.06 | .95581 | 37.35 | 31.01 | 29.64 | .95091 | 40.60 | 33.88 | 32.22 |
| .96023 | 34.15 | 28.22 | 27.10 | .95574 | 37.40 | 31.05 | 29.68 | .95083 | 40.65 | 33.93 | 32.26 |
| .96016 | 34.20 | 28.26 | 27.14 | .95567 | 37.45 | 31.10 | 29.72 | .95075 | 40.70 | 33.97 | 32.30 |
| .96010 | 34.25 | 28.31 | 27.18 | .95560 | 37.50 | 31.14 | 29.76 | .95067 | 40.75 | 34.02 | 32.34 |
| .96003 | 34.30 | 28.35 | 27.22 | .95552 | 37.55 | 31.18 | 29.80 | .95059 | 40.80 | 34.06 | 32.38 |
| .95996 | 34.35 | 28.39 | 27.26 | .95545 | 37.60 | 31.23 | 29.84 | .95052 | 40.85 | 34.11 | 32.42 |
| .95990 | 34.40 | 28.43 | 27.30 | .95538 | 37.65 | 31.27 | 29.88 | .95044 | 40.90 | 34.15 | 32.46 |
| .95983 | 34.45 | 28.48 | 27.34 | .95531 | 37.70 | 31.32 | 29.92 | .95036 | 40.95 | 34.20 | 32.50 |
| .95977 | 34.50 | 28.52 | 27.38 | .95523 | 37.75 | 31.36 | 29.96 | .95028 | 41.00 | 34.24 | 32.54 |
| .95970 | 34.55 | 28.56 | 27.42 | .95516 | 37.80 | 31.40 | 30.00 | .95020 | 41.05 | 34.28 | 32.58 |
| .95963 | 34.60 | 28.61 | 27.46 | .95509 | 37.85 | 31.45 | 30.04 | .95012 | 41.10 | 34.33 | 32.62 |
| .95957 | 34.65 | 28.65 | 27.50 | .95502 | 37.90 | 31.49 | 30.08 | .95004 | 41.15 | 34.37 | 32.66 |
| .95950 | 34.70 | 28.70 | 27.54 | .95494 | 37.95 | 31.54 | 30.12 | .94996 | 41.20 | 34.42 | 32.70 |

Below 50 per cent by volume—Continued.

| Specific gravity at 59° F. | Alcohol. | | | Specific gravity at 59° F. | Alcohol. | | | Specific gravity at 59° F. | Alcohol. | | |
|----------------------------|---------------------|---------------------|-------------------|----------------------------|---------------------|---------------------|-------------------|----------------------------|---------------------|---------------------|-------------------|
| | Per cent by volume. | Per cent by weight. | Grams per 100 cc. | | Per cent by volume. | Per cent by weight. | Grams per 100 cc. | | Per cent by volume. | Per cent by weight. | Grams per 100 cc. |
| 0.94988 | 41.25 | 34.46 | 32.74 | 0.94493 | 44.25 | 37.16 | 35.11 | 0.93962 | 47.25 | 39.90 | 37.49 |
| .94980 | 41.30 | 34.50 | 32.78 | .94484 | 44.30 | 37.21 | 35.15 | .93953 | 47.30 | 39.95 | 37.53 |
| .94972 | 41.35 | 34.55 | 32.82 | .94476 | 44.35 | 37.25 | 35.19 | .93944 | 47.35 | 39.99 | 37.57 |
| .94964 | 41.40 | 34.59 | 32.86 | .94467 | 44.40 | 37.30 | 35.23 | .93934 | 47.40 | 40.04 | 37.61 |
| .94956 | 41.45 | 34.64 | 32.90 | .94459 | 44.45 | 37.34 | 35.27 | .93925 | 47.45 | 40.08 | 37.65 |
| .94948 | 41.50 | 34.68 | 32.93 | .94450 | 44.50 | 37.39 | 35.31 | .93916 | 47.50 | 40.13 | 37.69 |
| .94940 | 41.55 | 34.73 | 32.97 | .94441 | 44.55 | 37.44 | 35.35 | .93906 | 47.55 | 40.18 | 37.73 |
| .94932 | 41.60 | 34.77 | 33.01 | .94433 | 44.60 | 37.48 | 35.39 | .93898 | 47.60 | 40.22 | 37.77 |
| .94924 | 41.65 | 34.82 | 33.05 | .94424 | 44.65 | 37.53 | 35.43 | .93888 | 47.65 | 40.27 | 37.81 |
| .94916 | 41.70 | 34.86 | 33.09 | .94416 | 44.70 | 37.57 | 35.47 | .93879 | 47.70 | 40.32 | 37.85 |
| .94908 | 41.75 | 34.91 | 33.13 | .94407 | 44.75 | 37.62 | 35.51 | .93870 | 47.75 | 40.37 | 37.89 |
| .94900 | 41.80 | 34.95 | 33.17 | .94398 | 44.80 | 37.66 | 35.55 | .93861 | 47.80 | 40.41 | 37.93 |
| .94892 | 41.85 | 35.00 | 33.21 | .94390 | 44.85 | 37.71 | 35.59 | .93852 | 47.85 | 40.46 | 37.97 |
| .94884 | 41.90 | 35.04 | 33.25 | .94381 | 44.90 | 37.76 | 35.63 | .93842 | 47.90 | 40.51 | 38.01 |
| .94876 | 41.95 | 35.09 | 33.29 | .94373 | 44.95 | 37.80 | 35.67 | .93833 | 47.95 | 40.55 | 38.05 |
| .94868 | 42.00 | 35.13 | 33.33 | .94364 | 45.00 | 37.84 | 35.71 | .93824 | 48.00 | 40.60 | 38.09 |
| .94860 | 42.05 | 35.18 | 33.37 | .94355 | 45.05 | 37.89 | 35.75 | .93815 | 48.05 | 40.65 | 38.13 |
| .94852 | 42.10 | 35.22 | 33.41 | .94346 | 45.10 | 37.93 | 35.79 | .93805 | 48.10 | 40.69 | 38.17 |
| .94843 | 42.15 | 35.27 | 33.45 | .94338 | 45.15 | 37.98 | 35.83 | .93796 | 48.15 | 40.74 | 38.21 |
| .94835 | 42.20 | 35.31 | 33.49 | .94329 | 45.20 | 38.02 | 35.87 | .93786 | 48.20 | 40.78 | 38.25 |
| .94827 | 42.25 | 35.36 | 33.53 | .94320 | 45.25 | 38.07 | 35.91 | .93777 | 48.25 | 40.83 | 38.29 |
| .94810 | 42.30 | 35.40 | 33.57 | .94311 | 45.30 | 38.12 | 35.95 | .93768 | 48.30 | 40.88 | 38.33 |
| .94811 | 42.35 | 35.45 | 33.61 | .94302 | 45.35 | 38.16 | 35.99 | .93758 | 48.35 | 40.92 | 38.37 |
| .94802 | 42.40 | 35.49 | 33.65 | .94294 | 45.40 | 38.21 | 36.03 | .93749 | 48.40 | 40.97 | 38.41 |
| .94794 | 42.45 | 35.54 | 33.69 | .94285 | 45.45 | 38.25 | 36.07 | .93739 | 48.45 | 41.01 | 38.45 |
| .94786 | 42.50 | 35.58 | 33.73 | .94276 | 45.50 | 38.30 | 36.11 | .93730 | 48.50 | 41.06 | 38.49 |
| .94778 | 42.55 | 35.63 | 33.77 | .94267 | 45.55 | 38.35 | 36.15 | .93721 | 48.55 | 41.11 | 38.53 |
| .94770 | 42.60 | 35.67 | 33.81 | .94258 | 45.60 | 38.39 | 36.19 | .93711 | 48.60 | 41.15 | 38.57 |
| .94761 | 42.65 | 35.72 | 33.85 | .94250 | 45.65 | 38.44 | 36.23 | .93702 | 48.65 | 41.20 | 38.61 |
| .94753 | 42.70 | 35.76 | 33.89 | .94241 | 45.70 | 38.48 | 36.26 | .93692 | 48.70 | 41.24 | 38.65 |
| .94745 | 42.75 | 35.81 | 33.93 | .94232 | 45.75 | 38.53 | 36.30 | .93683 | 48.75 | 41.29 | 38.69 |
| .94737 | 42.80 | 35.85 | 33.97 | .94223 | 45.80 | 38.57 | 36.34 | .93674 | 48.80 | 41.34 | 38.72 |
| .94729 | 42.85 | 35.90 | 34.00 | .94214 | 45.85 | 38.62 | 36.38 | .93664 | 48.85 | 41.38 | 38.76 |
| .94720 | 42.90 | 35.94 | 34.04 | .94206 | 45.90 | 38.66 | 36.42 | .93655 | 48.90 | 41.43 | 38.80 |
| .94712 | 42.95 | 35.99 | 34.08 | .94197 | 45.95 | 38.71 | 36.46 | .93645 | 48.95 | 41.47 | 38.84 |
| .94704 | 43.00 | 36.03 | 34.12 | .94188 | 46.00 | 38.75 | 36.50 | .93636 | 49.00 | 41.52 | 38.88 |
| .94696 | 43.05 | 36.08 | 34.16 | .94179 | 46.05 | 38.80 | 36.54 | .93626 | 49.05 | 41.57 | 38.92 |
| .94687 | 43.10 | 36.12 | 34.20 | .94170 | 46.10 | 38.84 | 36.58 | .93617 | 49.10 | 41.61 | 38.96 |
| .94679 | 43.15 | 36.17 | 34.24 | .94161 | 46.15 | 38.89 | 36.62 | .93607 | 49.15 | 41.66 | 39.00 |
| .94670 | 43.20 | 36.21 | 34.28 | .94152 | 46.20 | 38.93 | 36.66 | .93598 | 49.20 | 41.71 | 39.04 |
| .94662 | 43.25 | 36.26 | 34.32 | .94143 | 46.25 | 38.98 | 36.70 | .93588 | 49.25 | 41.76 | 39.08 |
| .94654 | 43.30 | 36.30 | 34.36 | .94134 | 46.30 | 39.03 | 36.74 | .93578 | 49.30 | 41.80 | 39.12 |
| .94645 | 43.35 | 36.35 | 34.40 | .94125 | 46.35 | 39.07 | 36.78 | .93569 | 49.35 | 41.85 | 39.16 |
| .94637 | 43.40 | 36.39 | 34.44 | .94116 | 46.40 | 39.12 | 36.82 | .93559 | 49.40 | 41.90 | 39.20 |
| .94628 | 43.45 | 36.44 | 34.48 | .94107 | 46.45 | 39.16 | 36.86 | .93550 | 49.45 | 41.94 | 39.24 |
| .94620 | 43.50 | 36.48 | 34.52 | .94098 | 46.50 | 39.21 | 36.90 | .93540 | 49.50 | 41.99 | 39.28 |
| .94612 | 43.55 | 36.53 | 34.56 | .94089 | 46.55 | 39.26 | 36.94 | .93530 | 49.55 | 42.04 | 39.32 |
| .94603 | 43.60 | 36.57 | 34.60 | .94080 | 46.60 | 39.30 | 36.98 | .93521 | 49.60 | 42.08 | 39.36 |
| .94595 | 43.65 | 36.62 | 34.64 | .94071 | 46.65 | 39.35 | 37.02 | .93511 | 49.65 | 42.13 | 39.40 |
| .94586 | 43.70 | 36.66 | 34.68 | .94062 | 46.70 | 39.39 | 37.06 | .93502 | 49.70 | 42.18 | 39.44 |
| .94578 | 43.75 | 36.71 | 34.72 | .94053 | 46.75 | 39.44 | 37.09 | .93492 | 49.75 | 42.23 | 39.48 |
| .94570 | 43.80 | 36.75 | 34.76 | .94044 | 46.80 | 39.49 | 37.13 | .93482 | 49.80 | 42.27 | 39.52 |
| .94561 | 43.85 | 36.80 | 34.80 | .94035 | 46.85 | 39.53 | 37.17 | .93473 | 49.85 | 42.32 | 39.56 |
| .94553 | 43.90 | 36.84 | 34.84 | .94026 | 46.90 | 39.58 | 37.21 | .93463 | 49.90 | 42.37 | 39.60 |
| .94544 | 43.95 | 36.89 | 34.88 | .94017 | 46.95 | 39.62 | 37.25 | .93454 | 49.95 | 42.41 | 39.63 |
| .94536 | 44.00 | 36.93 | 34.91 | .94008 | 47.00 | 39.67 | 37.29 | .93444 | 50.00 | 42.47 | 39.67 |
| .94527 | 44.05 | 36.98 | 34.95 | .93999 | 47.05 | 39.72 | 37.33 | | | | |
| .94519 | 44.10 | 37.02 | 34.99 | .93990 | 47.10 | 39.76 | 37.37 | | | | |
| .94510 | 44.15 | 37.07 | 35.03 | .93980 | 47.15 | 39.81 | 37.41 | | | | |
| .94502 | 44.20 | 37.11 | 35.07 | .93971 | 47.20 | 39.85 | 37.45 | | | | |

7
ABOVE 50 PER CENT BY VOLUME.

| Specific gravity at °° F. | Per cent by volume. | Per cent by weight. | Specific gravity at °° F. | Per cent by volume. | Per cent by weight. | Specific gravity at °° F. | Per cent by volume. | Per cent by weight. |
|------------------------------|---------------------------|---------------------------|------------------------------|---------------------------|---------------------------|------------------------------|---------------------------|---------------------------|
| .9343 | 50.00 | 42.52 | .9278 | 53.25 | 45.61 | .9213 | 56.38 | 48.61 |
| .9342 | 50.05 | 42.57 | .9277 | 53.30 | 45.65 | .9212 | 56.43 | 48.65 |
| .9341 | 50.10 | 42.61 | .9276 | 53.35 | 45.70 | .9211 | 56.48 | 48.70 |
| .9340 | 50.15 | 42.66 | .9275 | 53.40 | 45.75 | .9210 | 56.52 | 48.74 |
| .9339 | 50.20 | 42.71 | .9274 | 53.45 | 45.80 | .9209 | 56.57 | 48.79 |
| .9338 | 50.25 | 42.76 | .9273 | 53.50 | 45.84 | .9208 | 56.62 | 48.84 |
| .9337 | 50.30 | 42.80 | .9272 | 53.55 | 45.89 | .9207 | 56.67 | 48.88 |
| .9336 | 50.35 | 42.85 | .9271 | 53.60 | 45.94 | .9206 | 56.71 | 48.93 |
| .9335 | 50.40 | 42.90 | .9270 | 53.65 | 45.99 | .9205 | 56.76 | 48.98 |
| .9334 | 50.45 | 42.95 | .9269 | 53.70 | 46.03 | .9204 | 56.81 | 49.02 |
| .9333 | 50.50 | 42.99 | .9268 | 53.75 | 46.08 | .9203 | 56.86 | 49.07 |
| .9332 | 50.55 | 43.04 | .9267 | 53.80 | 46.13 | .9202 | 56.90 | 49.11 |
| .9331 | 50.60 | 43.09 | .9266 | 53.85 | 46.18 | .9201 | 56.95 | 49.16 |
| .9330 | 50.65 | 43.14 | .9265 | 53.90 | 46.22 | .9200 | 57.00 | 49.21 |
| .9329 | 50.70 | 43.18 | .9264 | 53.95 | 46.27 | .9199 | 57.05 | 49.26 |
| .9328 | 50.75 | 43.23 | .9263 | 54.00 | 46.32 | .9198 | 57.09 | 49.30 |
| .9327 | 50.80 | 43.28 | .9262 | 54.05 | 46.36 | .9197 | 57.14 | 49.35 |
| .9326 | 50.85 | 43.33 | .9261 | 54.10 | 46.41 | .9196 | 57.18 | 49.39 |
| .9325 | 50.90 | 43.37 | .9260 | 54.14 | 46.45 | .9195 | 57.23 | 49.44 |
| .9324 | 50.95 | 43.42 | .9259 | 54.19 | 46.50 | .9194 | 57.27 | 49.48 |
| .9323 | 51.00 | 43.47 | .9258 | 54.24 | 46.55 | .9193 | 57.32 | 49.53 |
| .9322 | 51.05 | 43.52 | .9257 | 54.29 | 46.59 | .9192 | 57.36 | 49.57 |
| .9321 | 51.10 | 43.56 | .9256 | 54.33 | 46.64 | .9191 | 57.41 | 49.62 |
| .9320 | 51.15 | 43.61 | .9255 | 54.38 | 46.69 | .9190 | 57.45 | 49.66 |
| .9319 | 51.20 | 43.66 | .9254 | 54.43 | 46.73 | .9189 | 57.50 | 49.71 |
| .9318 | 51.25 | 43.71 | .9253 | 54.48 | 46.78 | .9188 | 57.55 | 49.75 |
| .9317 | 51.30 | 43.75 | .9252 | 54.52 | 46.82 | .9187 | 57.59 | 49.80 |
| .9316 | 51.35 | 43.80 | .9251 | 54.57 | 46.87 | .9186 | 57.64 | 49.84 |
| .9315 | 51.40 | 43.85 | .9250 | 54.62 | 46.92 | .9185 | 57.68 | 49.89 |
| .9314 | 51.45 | 43.90 | .9249 | 54.67 | 46.96 | .9184 | 57.73 | 49.94 |
| .9313 | 51.50 | 43.94 | .9248 | 54.71 | 47.01 | .9183 | 57.77 | 49.98 |
| .9312 | 51.55 | 43.99 | .9247 | 54.76 | 47.06 | .9182 | 57.82 | 50.03 |
| .9311 | 51.60 | 44.04 | .9246 | 54.81 | 47.10 | .9181 | 57.86 | 50.07 |
| .9310 | 51.65 | 44.09 | .9245 | 54.86 | 47.15 | .9180 | 57.91 | 50.12 |
| .9309 | 51.70 | 44.13 | .9244 | 54.90 | 47.19 | .9179 | 57.95 | 50.16 |
| .9308 | 51.75 | 44.18 | .9243 | 54.95 | 47.24 | .9178 | 58.00 | 50.21 |
| .9307 | 51.80 | 44.23 | .9242 | 55.00 | 47.29 | .9177 | 58.05 | 50.25 |
| .9306 | 51.85 | 44.28 | .9241 | 55.05 | 47.33 | .9176 | 58.09 | 50.30 |
| .9305 | 51.90 | 44.32 | .9240 | 55.10 | 47.38 | .9175 | 58.14 | 50.34 |
| .9304 | 51.95 | 44.37 | .9239 | 55.14 | 47.42 | .9174 | 58.18 | 50.39 |
| .9303 | 52.00 | 44.42 | .9238 | 55.19 | 47.47 | .9173 | 58.23 | 50.43 |
| .9302 | 52.05 | 44.46 | .9237 | 55.24 | 47.51 | .9172 | 58.27 | 50.48 |
| .9301 | 52.10 | 44.51 | .9236 | 55.29 | 47.56 | .9171 | 58.32 | 50.52 |
| .9300 | 52.15 | 44.56 | .9235 | 55.33 | 47.60 | .9170 | 58.36 | 50.57 |
| .9299 | 52.20 | 44.61 | .9234 | 55.38 | 47.65 | .9169 | 58.41 | 50.61 |
| .9298 | 52.25 | 44.65 | .9233 | 55.43 | 47.69 | .9168 | 58.45 | 50.66 |
| .9297 | 52.30 | 44.70 | .9232 | 55.48 | 47.74 | .9167 | 58.50 | 50.70 |
| .9296 | 52.35 | 44.75 | .9231 | 55.52 | 47.78 | .9166 | 58.55 | 50.75 |
| .9295 | 52.40 | 44.79 | .9230 | 55.57 | 47.83 | .9165 | 58.59 | 50.79 |
| .9294 | 52.45 | 44.84 | .9229 | 55.62 | 47.87 | .9164 | 58.64 | 50.84 |
| .9293 | 52.50 | 44.89 | .9228 | 55.67 | 47.92 | .9163 | 58.68 | 50.88 |
| .9292 | 52.55 | 44.93 | .9227 | 55.71 | 47.96 | .9162 | 58.73 | 50.93 |
| .9291 | 52.60 | 44.98 | .9226 | 55.76 | 48.01 | .9161 | 58.77 | 50.97 |
| .9290 | 52.65 | 45.03 | .9225 | 55.81 | 48.05 | .9160 | 58.82 | 51.02 |
| .9289 | 52.70 | 45.08 | .9224 | 55.86 | 48.10 | .9159 | 58.86 | 51.06 |
| .9288 | 52.75 | 45.12 | .9223 | 55.90 | 48.14 | .9158 | 58.91 | 51.11 |
| .9287 | 52.80 | 45.17 | .9222 | 55.95 | 48.19 | .9157 | 58.95 | 51.15 |
| .9286 | 52.85 | 45.22 | .9221 | 56.00 | 48.24 | .9156 | 59.00 | 51.20 |
| .9285 | 52.90 | 45.26 | .9220 | 56.05 | 48.28 | .9155 | 59.05 | 51.25 |
| .9284 | 52.95 | 45.31 | .9219 | 56.10 | 48.33 | .9154 | 59.09 | 51.29 |
| .9283 | 53.00 | 45.36 | .9218 | 56.14 | 48.37 | .9153 | 59.14 | 51.34 |
| .9282 | 53.05 | 45.42 | .9217 | 56.19 | 48.42 | .9152 | 59.18 | 51.38 |
| .9281 | 53.10 | 45.46 | .9216 | 56.24 | 48.47 | .9151 | 59.23 | 51.43 |
| .9280 | 53.15 | 45.51 | .9215 | 56.29 | 48.51 | .9150 | 59.27 | 51.47 |
| .9279 | 53.20 | 45.56 | .9214 | 56.33 | 48.56 | .9149 | 59.32 | 51.52 |

Above 50 per cent by volume—Continued.

| Specific gravity at 60° F. | Per cent by volume. | Per cent by weight. | Specific gravity at 60° F. | Per cent by volume. | Per cent by weight. | Specific gravity at 60° F. | Per cent by volume. | Per cent by weight. |
|----------------------------|---------------------|---------------------|----------------------------|---------------------|---------------------|----------------------------|---------------------|---------------------|
| .9148 | 59.36 | 51.56 | .9083 | 62.30 | 54.52 | .9018 | 65.12 | 57.37 |
| .9147 | 59.41 | 51.61 | .9082 | 62.35 | 54.56 | .9017 | 65.17 | 57.42 |
| .9146 | 59.45 | 51.65 | .9081 | 62.39 | 54.60 | .9016 | 65.21 | 57.46 |
| .9145 | 59.50 | 51.70 | .9080 | 62.43 | 54.65 | .9015 | 65.25 | 57.50 |
| .9144 | 59.55 | 51.75 | .9079 | 62.48 | 54.69 | .9014 | 65.29 | 57.54 |
| .9143 | 59.59 | 51.79 | .9078 | 62.52 | 54.74 | .9013 | 65.33 | 57.59 |
| .9142 | 59.64 | 51.84 | .9077 | 62.57 | 54.78 | .9012 | 65.37 | 57.63 |
| .9141 | 59.68 | 51.88 | .9076 | 62.61 | 54.82 | .9011 | 65.42 | 57.67 |
| .9140 | 59.73 | 51.93 | .9075 | 62.65 | 54.87 | .9010 | 65.46 | 57.72 |
| .9139 | 59.77 | 51.97 | .9074 | 62.70 | 54.91 | .9009 | 65.50 | 57.76 |
| .9138 | 59.82 | 52.02 | .9073 | 62.74 | 54.95 | .9008 | 65.54 | 57.80 |
| .9137 | 59.86 | 52.06 | .9072 | 62.78 | 55.00 | .9007 | 65.58 | 57.85 |
| .9136 | 59.91 | 52.11 | .9071 | 62.83 | 55.04 | .9006 | 65.62 | 57.89 |
| .9135 | 59.95 | 52.15 | .9070 | 62.87 | 55.08 | .9005 | 65.67 | 57.93 |
| .9134 | 60.00 | 52.20 | .9069 | 62.91 | 55.13 | .9004 | 65.71 | 57.97 |
| .9133 | 60.05 | 52.24 | .9068 | 62.96 | 55.17 | .9003 | 65.75 | 58.02 |
| .9132 | 60.09 | 52.29 | .9067 | 63.00 | 55.21 | .9002 | 65.79 | 58.06 |
| .9131 | 60.14 | 52.33 | .9066 | 63.04 | 55.26 | .9001 | 65.83 | 58.10 |
| .9130 | 60.18 | 52.38 | .9065 | 63.09 | 55.30 | .9000 | 65.87 | 58.15 |
| .9129 | 60.23 | 52.43 | .9064 | 63.13 | 55.35 | .8999 | 65.92 | 58.19 |
| .9128 | 60.27 | 52.47 | .9063 | 63.17 | 55.39 | .8998 | 65.96 | 58.23 |
| .9127 | 60.32 | 52.52 | .9062 | 63.22 | 55.43 | .8997 | 66.00 | 58.27 |
| .9126 | 60.36 | 52.56 | .9061 | 63.25 | 55.48 | .8996 | 66.04 | 58.32 |
| .9125 | 60.41 | 52.61 | .9060 | 63.30 | 55.52 | .8995 | 66.08 | 58.36 |
| .9124 | 60.45 | 52.66 | .9059 | 63.35 | 55.57 | .8994 | 66.12 | 58.41 |
| .9123 | 60.50 | 52.70 | .9058 | 63.39 | 55.61 | .8993 | 66.17 | 58.45 |
| .9122 | 60.55 | 52.75 | .9057 | 63.43 | 55.65 | .8992 | 66.21 | 58.49 |
| .9121 | 60.59 | 52.79 | .9056 | 63.48 | 55.70 | .8991 | 66.25 | 58.54 |
| .9120 | 60.64 | 52.84 | .9055 | 63.52 | 55.74 | .8990 | 66.29 | 58.58 |
| .9119 | 60.68 | 52.88 | .9054 | 63.57 | 55.78 | .8989 | 66.33 | 58.62 |
| .9118 | 60.73 | 52.93 | .9053 | 63.61 | 55.83 | .8988 | 66.37 | 58.67 |
| .9117 | 60.77 | 52.98 | .9052 | 63.65 | 55.87 | .8987 | 66.42 | 58.71 |
| .9116 | 60.82 | 53.02 | .9051 | 63.70 | 55.92 | .8986 | 66.46 | 58.76 |
| .9115 | 60.86 | 53.07 | .9050 | 63.74 | 55.96 | .8985 | 66.50 | 58.80 |
| .9114 | 60.91 | 53.11 | .9049 | 63.78 | 56.00 | .8984 | 66.54 | 58.84 |
| .9113 | 60.95 | 53.16 | .9048 | 63.83 | 56.05 | .8983 | 66.58 | 58.89 |
| .9112 | 61.00 | 53.20 | .9047 | 63.87 | 56.09 | .8982 | 66.62 | 58.93 |
| .9111 | 61.05 | 53.24 | .9046 | 63.91 | 56.14 | .8981 | 66.67 | 58.97 |
| .9110 | 61.09 | 53.29 | .9045 | 63.96 | 56.18 | .8980 | 66.71 | 59.02 |
| .9109 | 61.14 | 53.33 | .9044 | 64.00 | 56.22 | .8979 | 66.75 | 59.06 |
| .9108 | 61.18 | 53.38 | .9043 | 64.04 | 56.27 | .8978 | 66.79 | 59.11 |
| .9107 | 61.23 | 53.43 | .9042 | 64.09 | 56.31 | .8977 | 66.83 | 59.15 |
| .9106 | 61.27 | 53.47 | .9041 | 64.13 | 56.36 | .8976 | 66.87 | 59.19 |
| .9105 | 61.32 | 53.52 | .9040 | 64.17 | 56.40 | .8975 | 66.92 | 59.24 |
| .9104 | 61.36 | 53.56 | .9039 | 64.22 | 56.45 | .8974 | 66.96 | 59.28 |
| .9103 | 61.41 | 53.61 | .9038 | 64.26 | 56.49 | .8973 | 67.00 | 59.32 |
| .9102 | 61.45 | 53.65 | .9037 | 64.30 | 56.53 | .8972 | 67.04 | 59.37 |
| .9101 | 61.50 | 53.70 | .9036 | 64.35 | 56.58 | .8971 | 67.08 | 59.41 |
| .9100 | 61.55 | 53.75 | .9035 | 64.39 | 56.62 | .8970 | 67.12 | 59.46 |
| .9099 | 61.59 | 53.79 | .9034 | 64.43 | 56.67 | .8969 | 67.17 | 59.50 |
| .9098 | 61.64 | 53.84 | .9033 | 64.48 | 56.71 | .8968 | 67.21 | 59.55 |
| .9097 | 61.68 | 53.88 | .9032 | 64.52 | 56.76 | .8967 | 67.25 | 59.59 |
| .9096 | 61.73 | 53.93 | .9031 | 64.57 | 56.80 | .8966 | 67.29 | 59.63 |
| .9095 | 61.77 | 53.98 | .9030 | 64.61 | 56.85 | .8965 | 67.33 | 59.68 |
| .9094 | 61.82 | 54.02 | .9029 | 64.65 | 56.89 | .8964 | 67.37 | 59.72 |
| .9093 | 61.86 | 54.07 | .9028 | 64.70 | 56.93 | .8963 | 67.42 | 59.77 |
| .9092 | 61.91 | 54.11 | .9027 | 64.74 | 56.98 | .8962 | 67.46 | 59.81 |
| .9091 | 61.95 | 54.16 | .9026 | 64.78 | 57.02 | .8961 | 67.50 | 59.85 |
| .9090 | 62.00 | 54.21 | .9025 | 64.83 | 57.07 | .8960 | 67.54 | 59.90 |
| .9089 | 62.04 | 54.26 | .9024 | 64.87 | 57.11 | .8959 | 67.58 | 59.94 |
| .9088 | 62.09 | 54.30 | .9023 | 64.91 | 57.16 | .8958 | 67.62 | 59.99 |
| .9087 | 62.13 | 54.34 | .9022 | 64.96 | 57.20 | .8957 | 67.67 | 60.03 |
| .9086 | 62.17 | 54.39 | .9021 | 65.00 | 57.24 | .8956 | 67.71 | 60.08 |
| .9085 | 62.22 | 54.43 | .9020 | 65.04 | 57.29 | .8955 | 67.75 | 60.12 |
| .9084 | 62.26 | 54.47 | .9019 | 65.08 | 57.33 | .8954 | 67.79 | 60.16 |

Above 50 per cent by volume—Continued.

| Specific gravity at 60° F. | Per cent by volume. | Per cent by weight. | Specific gravity at 60° F. | Per cent by volume. | Per cent by weight. | Specific gravity at 60° F. | Per cent by volume. | Per cent by weight. |
|----------------------------|---------------------|---------------------|----------------------------|---------------------|---------------------|----------------------------|---------------------|---------------------|
| .8953 | 67.83 | 60.21 | .8888 | 70.48 | 63.02 | .8823 | 73.08 | 65.83 |
| .8952 | 67.87 | 60.25 | .8887 | 70.52 | 63.06 | .8822 | 73.12 | 65.87 |
| .8951 | 67.92 | 60.30 | .8886 | 70.56 | 63.11 | .8821 | 73.15 | 65.91 |
| .8950 | 67.96 | 60.34 | .8885 | 70.60 | 63.15 | .8820 | 73.19 | 65.95 |
| .8949 | 68.00 | 60.38 | .8884 | 70.64 | 63.19 | .8819 | 73.23 | 65.99 |
| .8948 | 68.04 | 60.43 | .8883 | 70.68 | 63.24 | .8818 | 73.27 | 66.04 |
| .8947 | 68.08 | 60.47 | .8882 | 70.72 | 63.28 | .8817 | 73.31 | 66.08 |
| .8946 | 68.12 | 60.52 | .8881 | 70.76 | 63.32 | .8816 | 73.35 | 66.12 |
| .8945 | 68.17 | 60.56 | .8880 | 70.80 | 63.37 | .8815 | 73.38 | 66.16 |
| .8944 | 68.21 | 60.61 | .8879 | 70.84 | 63.41 | .8814 | 73.42 | 66.20 |
| .8943 | 68.25 | 60.65 | .8878 | 70.88 | 63.45 | .8813 | 73.46 | 66.25 |
| .8942 | 68.29 | 60.69 | .8877 | 70.92 | 63.50 | .8812 | 73.50 | 66.29 |
| .8941 | 68.33 | 60.74 | .8876 | 70.96 | 63.54 | .8811 | 73.54 | 66.33 |
| .8940 | 68.37 | 60.78 | .8875 | 71.00 | 63.58 | .8810 | 73.58 | 66.37 |
| .8939 | 68.42 | 60.83 | .8874 | 71.04 | 63.63 | .8809 | 73.62 | 66.41 |
| .8938 | 68.46 | 60.87 | .8873 | 71.08 | 63.67 | .8808 | 73.65 | 66.46 |
| .8937 | 68.50 | 60.91 | .8872 | 71.12 | 63.71 | .8807 | 73.69 | 66.50 |
| .8936 | 68.54 | 60.96 | .8871 | 71.16 | 63.76 | .8806 | 73.73 | 66.54 |
| .8935 | 68.58 | 61.00 | .8870 | 71.20 | 63.80 | .8805 | 73.77 | 66.58 |
| .8934 | 68.62 | 61.05 | .8869 | 71.24 | 63.84 | .8804 | 73.81 | 66.62 |
| .8933 | 68.67 | 61.09 | .8868 | 71.28 | 63.89 | .8803 | 73.85 | 66.67 |
| .8932 | 68.71 | 61.14 | .8867 | 71.32 | 63.93 | .8802 | 73.88 | 66.71 |
| .8931 | 68.75 | 61.18 | .8866 | 71.36 | 63.97 | .8801 | 73.92 | 66.75 |
| .8930 | 68.79 | 61.22 | .8865 | 71.40 | 64.02 | .8800 | 73.96 | 66.79 |
| .8929 | 68.83 | 61.27 | .8864 | 71.44 | 64.06 | .8799 | 74.00 | 66.83 |
| .8928 | 68.87 | 61.31 | .8863 | 71.48 | 64.10 | .8798 | 74.04 | 66.87 |
| .8927 | 68.92 | 61.36 | .8862 | 71.52 | 64.14 | .8797 | 74.08 | 66.92 |
| .8926 | 68.96 | 61.40 | .8861 | 71.56 | 64.19 | .8796 | 74.12 | 66.96 |
| .8925 | 69.00 | 61.44 | .8860 | 71.60 | 64.23 | .8795 | 74.15 | 67.00 |
| .8924 | 69.04 | 61.48 | .8859 | 71.64 | 64.27 | .8794 | 74.19 | 67.04 |
| .8923 | 69.08 | 61.53 | .8858 | 71.68 | 64.32 | .8793 | 74.23 | 67.09 |
| .8922 | 69.12 | 61.57 | .8857 | 71.72 | 64.36 | .8792 | 74.27 | 67.13 |
| .8921 | 69.16 | 61.61 | .8856 | 71.76 | 64.40 | .8791 | 74.31 | 67.17 |
| .8920 | 69.20 | 61.65 | .8855 | 71.80 | 64.45 | .8790 | 74.35 | 67.21 |
| .8919 | 69.24 | 61.70 | .8854 | 71.84 | 64.49 | .8789 | 74.38 | 67.26 |
| .8918 | 69.28 | 61.74 | .8853 | 71.88 | 64.53 | .8788 | 74.42 | 67.30 |
| .8917 | 69.32 | 61.78 | .8852 | 71.92 | 64.58 | .8787 | 74.46 | 67.34 |
| .8916 | 69.36 | 61.82 | .8851 | 71.96 | 64.62 | .8786 | 74.50 | 67.38 |
| .8915 | 69.40 | 61.87 | .8850 | 72.00 | 64.66 | .8785 | 74.54 | 67.42 |
| .8914 | 69.44 | 61.91 | .8849 | 72.04 | 64.71 | .8784 | 74.58 | 67.47 |
| .8913 | 69.48 | 61.95 | .8848 | 72.08 | 64.75 | .8783 | 74.62 | 67.51 |
| .8912 | 69.52 | 61.99 | .8847 | 72.12 | 64.79 | .8782 | 74.65 | 67.55 |
| .8911 | 69.56 | 62.04 | .8846 | 72.16 | 64.84 | .8781 | 74.69 | 67.59 |
| .8910 | 69.60 | 62.08 | .8845 | 72.20 | 64.88 | .8780 | 74.73 | 67.64 |
| .8909 | 69.64 | 62.12 | .8844 | 72.24 | 64.92 | .8779 | 74.77 | 67.68 |
| .8908 | 69.68 | 62.16 | .8843 | 72.28 | 64.97 | .8778 | 74.81 | 67.72 |
| .8907 | 69.72 | 62.21 | .8842 | 72.32 | 65.01 | .8777 | 74.85 | 67.76 |
| .8906 | 69.76 | 62.25 | .8841 | 72.36 | 65.05 | .8776 | 74.88 | 67.81 |
| .8905 | 69.80 | 62.29 | .8840 | 72.40 | 65.10 | .8775 | 74.92 | 67.85 |
| .8904 | 69.84 | 62.33 | .8839 | 72.44 | 65.14 | .8774 | 74.96 | 67.89 |
| .8903 | 69.88 | 62.38 | .8838 | 72.48 | 65.18 | .8773 | 75.00 | 67.93 |
| .8902 | 69.92 | 62.42 | .8837 | 72.52 | 65.22 | .8772 | 75.04 | 67.98 |
| .8901 | 69.96 | 62.46 | .8836 | 72.56 | 65.27 | .8771 | 75.08 | 68.02 |
| .8900 | 70.00 | 62.50 | .8835 | 72.60 | 65.31 | .8770 | 75.12 | 68.06 |
| .8899 | 70.04 | 62.55 | .8834 | 72.64 | 65.35 | .8769 | 75.15 | 68.11 |
| .8898 | 70.08 | 62.59 | .8833 | 72.68 | 65.40 | .8768 | 75.19 | 68.15 |
| .8897 | 70.12 | 62.63 | .8832 | 72.72 | 65.44 | .8767 | 75.23 | 68.19 |
| .8896 | 70.16 | 62.68 | .8831 | 72.76 | 65.48 | .8766 | 75.27 | 68.23 |
| .8895 | 70.20 | 62.72 | .8830 | 72.80 | 65.53 | .8765 | 75.31 | 68.28 |
| .8894 | 70.24 | 62.76 | .8829 | 72.84 | 65.57 | .8764 | 75.35 | 68.32 |
| .8893 | 70.28 | 62.81 | .8828 | 72.88 | 65.61 | .8763 | 75.38 | 68.36 |
| .8892 | 70.32 | 62.85 | .8827 | 72.92 | 65.66 | .8762 | 75.42 | 68.41 |
| .8891 | 70.36 | 62.89 | .8826 | 72.96 | 65.70 | .8761 | 75.46 | 68.45 |
| .8890 | 70.40 | 62.94 | .8825 | 73.00 | 65.74 | .8760 | 75.50 | 68.49 |
| .8889 | 70.44 | 62.98 | .8824 | 73.04 | 65.78 | .8759 | 75.54 | 68.54 |

Above 50 per cent by volume—Continued.

| Specific gravity at 69° F. | Per cent by volume. | Per cent by weight. | Specific gravity at 69° F. | Per cent by volume. | Per cent by weight. | Specific gravity at 69° F. | Per cent by volume. | Per cent by weight. |
|----------------------------|---------------------|---------------------|----------------------------|---------------------|---------------------|----------------------------|---------------------|---------------------|
| .8758 | 75.58 | 68.58 | .8698 | 77.81 | 71.10 | .8638 | 80.04 | 73.63 |
| .8757 | 75.62 | 68.62 | .8697 | 77.85 | 71.14 | .8637 | 80.07 | 73.67 |
| .8756 | 75.65 | 68.67 | .8696 | 77.89 | 71.19 | .8636 | 80.11 | 73.71 |
| .8755 | 75.69 | 68.71 | .8695 | 77.93 | 71.23 | .8635 | 80.14 | 73.76 |
| .8754 | 75.73 | 68.75 | .8694 | 77.96 | 71.27 | .8634 | 80.18 | 73.80 |
| .8753 | 75.77 | 68.79 | .8693 | 78.00 | 71.31 | .8633 | 80.21 | 73.84 |
| .8752 | 75.81 | 68.84 | .8692 | 78.04 | 71.35 | .8632 | 80.25 | 73.88 |
| .8751 | 75.85 | 68.88 | .8691 | 78.07 | 71.40 | .8631 | 80.29 | 73.92 |
| .8750 | 75.88 | 68.92 | .8690 | 78.11 | 71.44 | .8630 | 80.32 | 73.96 |
| .8749 | 75.92 | 68.97 | .8689 | 78.15 | 71.48 | .8629 | 80.36 | 74.00 |
| .8748 | 75.96 | 69.01 | .8688 | 78.19 | 71.52 | .8628 | 80.39 | 74.04 |
| .8747 | 76.00 | 69.05 | .8687 | 78.22 | 71.57 | .8627 | 80.43 | 74.08 |
| .8746 | 76.04 | 69.09 | .8686 | 78.26 | 71.61 | .8626 | 80.46 | 74.12 |
| .8745 | 76.07 | 69.14 | .8685 | 78.30 | 71.65 | .8625 | 80.50 | 74.17 |
| .8744 | 76.11 | 69.18 | .8684 | 78.33 | 71.69 | .8624 | 80.54 | 74.21 |
| .8743 | 76.15 | 69.22 | .8683 | 78.37 | 71.73 | .8623 | 80.57 | 74.25 |
| .8742 | 76.19 | 69.26 | .8682 | 78.41 | 71.78 | .8622 | 80.61 | 74.29 |
| .8741 | 76.22 | 69.30 | .8681 | 78.44 | 71.82 | .8621 | 80.64 | 74.33 |
| .8740 | 76.26 | 69.34 | .8680 | 78.48 | 71.86 | .8620 | 80.68 | 74.37 |
| .8739 | 76.30 | 69.39 | .8679 | 78.52 | 71.90 | .8619 | 80.71 | 74.41 |
| .8738 | 76.33 | 69.43 | .8678 | 78.56 | 71.95 | .8618 | 80.75 | 74.45 |
| .8737 | 76.37 | 69.47 | .8677 | 78.59 | 71.99 | .8617 | 80.79 | 74.49 |
| .8736 | 76.41 | 69.51 | .8676 | 78.63 | 72.03 | .8616 | 80.82 | 74.54 |
| .8735 | 76.44 | 69.55 | .8675 | 78.67 | 72.07 | .8615 | 80.86 | 74.58 |
| .8734 | 76.48 | 69.60 | .8674 | 78.70 | 72.11 | .8614 | 80.89 | 74.62 |
| .8733 | 76.52 | 69.64 | .8673 | 78.74 | 72.16 | .8613 | 80.93 | 74.66 |
| .8732 | 76.56 | 69.68 | .8672 | 78.78 | 72.20 | .8612 | 80.96 | 74.70 |
| .8731 | 76.59 | 69.72 | .8671 | 78.81 | 72.24 | .8611 | 81.00 | 74.74 |
| .8730 | 76.63 | 69.76 | .8670 | 78.85 | 72.28 | .8610 | 81.04 | 74.78 |
| .8729 | 76.67 | 69.81 | .8669 | 78.89 | 72.33 | .8609 | 81.07 | 74.83 |
| .8728 | 76.70 | 69.85 | .8668 | 78.93 | 72.37 | .8608 | 81.11 | 74.87 |
| .8727 | 76.74 | 69.89 | .8667 | 78.96 | 72.41 | .8607 | 81.14 | 74.91 |
| .8726 | 76.78 | 69.93 | .8666 | 79.00 | 72.45 | .8606 | 81.18 | 74.95 |
| .8725 | 76.81 | 69.97 | .8665 | 79.04 | 72.49 | .8605 | 81.21 | 74.99 |
| .8724 | 76.85 | 70.01 | .8664 | 79.07 | 72.54 | .8604 | 81.25 | 75.03 |
| .8723 | 76.89 | 70.06 | .8663 | 79.11 | 72.58 | .8603 | 81.29 | 75.08 |
| .8722 | 76.93 | 70.10 | .8662 | 79.15 | 72.62 | .8602 | 81.32 | 75.12 |
| .8721 | 76.96 | 70.14 | .8661 | 79.19 | 72.66 | .8601 | 81.36 | 75.16 |
| .8720 | 77.00 | 70.18 | .8660 | 79.22 | 72.71 | .8600 | 81.39 | 75.20 |
| .8719 | 77.04 | 70.22 | .8659 | 79.26 | 72.75 | .8599 | 81.43 | 75.24 |
| .8718 | 77.07 | 70.27 | .8658 | 79.30 | 72.79 | .8598 | 81.46 | 75.29 |
| .8717 | 77.11 | 70.31 | .8657 | 79.33 | 72.83 | .8597 | 81.50 | 75.33 |
| .8716 | 77.15 | 70.35 | .8656 | 79.37 | 72.87 | .8596 | 81.54 | 75.37 |
| .8715 | 77.19 | 70.39 | .8655 | 79.41 | 72.92 | .8595 | 81.57 | 75.41 |
| .8714 | 77.22 | 70.43 | .8654 | 79.44 | 72.96 | .8594 | 81.61 | 75.45 |
| .8713 | 77.26 | 70.47 | .8653 | 79.48 | 73.00 | .8593 | 81.64 | 75.49 |
| .8712 | 77.30 | 70.52 | .8652 | 79.52 | 73.04 | .8592 | 81.68 | 75.54 |
| .8711 | 77.33 | 70.56 | .8651 | 79.56 | 73.09 | .8591 | 81.71 | 75.58 |
| .8710 | 77.37 | 70.60 | .8650 | 79.59 | 73.13 | .8590 | 81.75 | 75.62 |
| .8709 | 77.41 | 70.64 | .8649 | 79.63 | 73.17 | .8589 | 81.79 | 75.66 |
| .8708 | 77.44 | 70.68 | .8648 | 79.67 | 73.21 | .8588 | 81.82 | 75.70 |
| .8707 | 77.48 | 70.73 | .8647 | 79.70 | 73.25 | .8587 | 81.86 | 75.74 |
| .8706 | 77.52 | 70.77 | .8646 | 79.74 | 73.30 | .8586 | 81.89 | 75.79 |
| .8705 | 77.56 | 70.81 | .8645 | 79.78 | 73.34 | .8585 | 81.93 | 75.83 |
| .8704 | 77.59 | 70.85 | .8644 | 79.81 | 73.38 | .8584 | 81.96 | 75.87 |
| .8703 | 77.63 | 70.89 | .8643 | 79.85 | 73.42 | .8583 | 82.00 | 75.91 |
| .8702 | 77.67 | 70.94 | .8642 | 79.89 | 73.47 | | | |
| .8701 | 77.70 | 70.98 | .8641 | 79.93 | 73.51 | | | |
| .8700 | 77.74 | 71.02 | .8640 | 79.96 | 73.55 | | | |
| .8699 | 77.78 | 71.06 | .8639 | 80.00 | 73.59 | | | |





